

Notice of Allowability

Application No.

10/724,149

Examiner

Haissa Philogene

Applicant(s)

KUSUNOKI ET AL.

Art Unit

2828

*AW***-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 04/20/05.
2. ☒ The allowed claim(s) is/are 3-8, 10-19, 21-55, 57-79 now numbered 1-74.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 8/8/05.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Haissa Philogene
Primary Examiner

Haissa Philogene
A.U. 2828

DETAILED ACTION

EXAMINER'S COMMENT

In a letter filed 4/20/05, Applicant asserted submitting a corrected drawing for Fig.1 with a legend "Prior Art" added to it. Such drawing is not received. Applicant is required to submit or resubmit said drawing in the next communication.

EXAMINER'S AMENDMENT

Authorization for this examiner's amendment was given in a telephone interview with Juan Carlos A. Marquez on August 7, 2005.

The application has been amended as follows:

In claim 4, line 16, after "bus electrode", "." has been deleted;

In claim 8, line 13, after "area is", ";" has been deleted;

Clam 56 has been cancelled for depending upon canceled claim 2.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: The prior art fails to disclose a display device having, inter alia, each of said thin-film type electron sources being provided between adjacent ones of stripe-shaped upper bus electrodes at least in an image display area, wherein said upper electrode formed as a film in said image display area is connected to one of said upper bus electrodes in a corresponding pixel, and separated from other upper bus electrodes in adjacent pixels, so that individual pixels are separated from each other (claims 3 and 4); each of said thin-film type electron sources being provided between a stripe-shaped upper bus electrode and

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a stripe-shaped spacer electrode at least in an image display area, wherein said upper electrode formed as a film in said image display area is connected to said upper bus electrode and separated from said spacer electrode; wherein said upper electrode is isolated from said spacer electrode and said upper bus electrodes of said thin film type electron sources in adjacent rows; and wherein spacers for supporting said cathode structure and said fluorescent screen substrate therebetween are disposed on said spacer electrode (claims 6 and 7); each of said thin-film type electron sources being provided between stripe-shaped first and second upper bus electrodes at least in an image display area, wherein said upper electrode formed as a film in said image display area is connected to said first and second upper bus electrodes; wherein a stripe-shaped third electrode is further provided at least in said image display area so as to be formed in parallel with said first and second upper bus electrodes; wherein said upper electrode is separated by a step of an apprentice structure formed in a side surface of said third electrode and isolated from said upper bus electrodes of said thin film type electron sources present in adjacent rows; wherein spacers for supporting said cathode structure and said fluorescent screen substrate therebetween are disposed on said third electrode (claim 8); wherein each of said stripe-shaped upper bus electrode and said stripe-shaped spacer electrode has a laminated film structure of at least two layers of metal thin films (claims 10 and 26); wherein each of said stripe-shaped upper bus electrode and said stripe-shaped spacer electrode is formed out of at least three metal films in which Cu is put between other metals (claims 11-13, 32 and 38 and 44);

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wherein said stripe-shaped upper bus electrode and said stripe-shaped spacer electrode are used as scanning lines for matrix driving of said display panel (claims 14 and 50); wherein said stripe-shaped upper bus electrode is formed out of a laminated film of a thin film formed by sputtering and a conductive thick film formed by printing (claims 15, 17 and 18 and 68 and 74); wherein a thin film portion of said upper bus electrode is comprised of at least two films, having a step structure to connect with said upper electrode on one side surface of wiring of said upper bus electrode, and having an apprentice structure to separate said upper electrode on the opposite side surface of said wiring of said upper bus electrode (claims 16 and 62). The remaining claims 5, 19, 21-25, 27-31, 33-37, 39-43, 45-49, 51-55, 57-61, 63-67, 69-73 and 75-79 are allowed by virtue of their dependencies on the independent claims. Hence, the examiner has allowed claims 3-6, 10-19, 21-55 and 57-79.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haissa Philogene whose telephone number is (571) 272-1827. The examiner can normally be reached on 8:30 A.M.-6:00 P.M..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MinSun Harvey can be reached on (571)272-1835. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

hp

Haissa Philogene
Primary Examiner
11/21/11 A.U. 2828 ✓ —